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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,723	02/19/2002	Scott P. Dubal	884.738US1	5435
21186	7590	05/05/2005	EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402-0938			WANG, ALBERT C	
			ART UNIT	PAPER NUMBER
			2115	

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/078,723	DUBAL	
	Examiner	Art Unit	
	Albert Wang	2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on \_\_\_\_.

2a) This action is FINAL.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-24 is/are pending in the application.

4a) Of the above claim(s) 7-20 is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_ is/are allowed.

6) Claim(s) 1-6 and 21-24 is/are rejected.

7) Claim(s) \_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/19/2002.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date 20050430.

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_.

## DETAILED ACTION

1. Original claims 1-24 are pending.

### *Election/Restrictions*

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-6 and 21-24, drawn to downloading a boot image over a network and compressing the boot image into a boot ROM, classified in class 717, subclass 713.
  - II. Claims 7-20, drawn to decompressing a boot image from a boot ROM, classified in class 713, subclass 2.

The inventions are distinct, each from the other because of the following reasons:

Inventions Group I and Group II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, Group I has separate utility such as updating boot code in the option ROM of a network adapter. Group II has separate utility such as decompressing boot code from the option ROM of a network adapter for booting a network computer. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

3. During a telephone conversation with Ann McCrackin (reg. no. 42,858) on April 28, 2005 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-6 and 21-24. Affirmation of this election must be made by applicant in replying to this

Office action. Claims 7-20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Objections***

4. Claim 2 is objected to because of the following informalities: “programing” is misspelled. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-6 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klimenko, U.S. Patent No. 5,974,547, in view of Leung et al., U.S. Patent No. 6,282,647 (“Leung”), and Greene et al., U.S. Patent No. 5,836,013 (“Greene”).

As per claim 1, Klimenko teaches a method comprising:

using a network adapter comprising a boot ROM with a boot image (figs. 2A & 3, NIC 360 comprising ROM 362 with boot code 364; fig. 4A),  
wherein the network adapter is connected to a server via a network (figs. 1 & 2A, to server 50 via network 30).

However, Klimenko does not expressly teach receiving a boot image via a network. Leung teaches receiving a boot image from a server via a network (col. 7, lines 10-23) for the purpose of programming the boot image into a boot ROM of an adapter (fig. 3, using option ROM BIOS programming utility 140; fig. 5, steps 414-420; col. 6, lines 7-18). At the time of the

invention, it would have been obvious to one of ordinary skill in the art to apply Leung's receiving and programming to Klimenko's method. A motivation for doing so would have been to permit updates of the ROM image (Leung, col. 1, lines 47-49).

Klimenko/Leung does not expressly teach compressing the boot image once it is downloaded. Greene teaches taking a boot image (figs. 4 & 5, image 440) and creating a compressed boot image from the image (fig. 6, step 630 creates compressed image 632; col. 3, lines 53-65; col. 5, lines 19-36). At the time of invention it would have been obvious to one ordinary skill in the art to apply Greene's compression to Klimenko/Leung's method. A motivation for doing so would have been to maximize use of existing ROM (Greene, col. 1, lines 8-20).

As per claim 2, Greene teaches programming a loader into a boot image (fig. 4, decompression program 422 programmed into image 440; fig. 10, decompression program comprises functions 1106 & 1108).

As per claim 3, Greene teaches programming a decompressor into a boot image (fig. 4, decompression program 422 programmed into image 440; fig. 10, decompression program comprises decompression algorithm 1102).

As per claim 4, Greene teaches programming a header into a boot image (fig. 7, header 710).

As per claim 5, Greene teaches identifying in the header that the boot image is compressed (fig. 7, header flags 720).

As per claim 6, Greene teaches identifying in the header a location of the loader in the boot ROM (fig. 7, signature 712).

As per claim 21, Klimenko teaches an electronic device comprising:  
a processor (fig. 3, processor 320);  
a network adapter comprising a boot ROM with a boot image (figs. 2A & 3, NIC 360 comprising ROM 362 with boot code 364); and  
a storage device for holding utility programs to be executed on the processor (fig. 3, RAM 332).

However, Klimenko does not expressly teach a utility program for programming the boot image into the boot ROM. Leung teaches a storage device holding utility programs (col. 5, lines 30-39, RAM 120) and a utility program for programming a boot image into a boot ROM of an adapter (fig. 3, option ROM BIOS programming utility 140; fig. 5, steps 414-420; col. 6, lines 7-18). At the time of the invention, it would have been obvious to one of ordinary skill in the art to apply Leung's programming utility to Klimenko's electronic device. A motivation for doing so would have been to permit updates of the ROM image (Leung, col. 1, lines 47-49).

Klimenko/Leung does not expressly teach compressing the boot image into a compressed boot image. Greene teaches taking a boot image (figs. 4 & 5, image 440) and creating a compressed boot image from the image (fig. 6, step 630 creates compressed image 632; col. 3, lines 53-65; col. 5, lines 19-36). It would have been obvious to one ordinary skill in the art, at the time of the invention, to apply Greene's compression to Klimenko/Leung's electronic device, in order to maximize use of existing ROM (Greene, col. 1, lines 8-20).

As per claim 22, Greene teaches programming a loader and decompressor into a boot image (fig. 4, decompression program 422 programmed into image 440; fig. 10, decompression program comprises decompression algorithm 1102 and functions 1106 & 1108).

As per claim 23, Klimenko teaches the boot image is further to boot an electronic device (col. 7, lines 17-27).

As per claim 24, Klimenko teaches a BIOS to detect the boot ROM (col. 7, lines 17-27).

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert Wang whose telephone number is 571-272-3669. The examiner can normally be reached on M-F (9:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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April 30, 2005

